

[54] INDENTATION TONOMETER

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[57] ABSTRACT

An indentation tonometer is contained within a hand holdable housing below which extends a foot plate and a movable plunger. An optical encoder is disposed within the housing and has a ruled scale that is fixed relative to the foot plate and an adjacent ruled scale that is movable relative to the fixed scale. The movable scale engages an upper surface of the plunger and is elevated to a position corresponding to the position of the plunger relative to the foot plate as intraocular pressure is measured. Components for the optical encoder are arranged within the housing to produce a digital read-out. The foot plate and plunger are preferably arranged in a subassembly that is vertically movable relative to the housing with suitable switches arranged for detecting when a reading is completed and for automatically calibrating the instrument on the test block. The foot plate and plunger are readily removable, plungers are interchangeable, and the instrument preferably has a memory capable of storing the data from measurement of two eyes.

12 Claims, 4 Drawing Figures

